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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,145	04/11/2001	Koichi Tamura	S004-4277	1619

7590 04/23/2004

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EXAMINER

ABRAMS, NEIL

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,145

Applicant(s)

TAMURA ET AL.

Examiner

Neil Abrams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3-22-04
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) _____ is/are rejected. 1-3, 5-21
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Abstract is unclear, line 4 after "wire" – or outer conductive layer – should be added. The second sentence could be deleted and – when the high voltage cable is not in use, a connecting sheath or cove is placed over the cable exposed portion and includes a conductor to electrically join the cable core to the shielding wire to prevent build-up of static charge on the core. – added in its place.

New abstract on separate sheet is required.

Note that feature 23 is typically referred to as a layer or shield rather than as a wire -.

na ~~The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claims 1, 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.~~

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings ~~will not be held in abeyance.~~

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claims 1, 7, 13, etc, first and second housings one of which includes a connector attachable to a fixing screw must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

New fig. required in next response. The features could be schematically shown in a new fig. 2A with cable 21-23 joined to one housing and screw 24 and the cable end aligned with a connector on the other housing.

Sheath 1 would be omitted in such figure and the new fig. should be noted in spec. page 6.

Claims 13, 17, 18 and 1-12, 14-16, 19, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (APA) in view of Cronin, Wallo and Lombard.

For claim 13 APA (spec. pages 1, 2) discloses a X-ray system with first and second housings to be joined by a coaxial high voltage cable, APA does not disclose connecting means for conductively joining the cable core and shield when the cable is not in use.

Cronin figs. 1, 2, 3 discloses a coaxial cable with connecting means 22, 10 for covering the core and joining it to the cable shield. Wallo discloses a coaxial system with core 12, insulator 13, shielding shell (wire) 14 and shunt (connecting means) 29.

Lombard discloses a shorting plug 10, figs. 2, 6, 7 that covers a conductive core and joins it to an outer shield (wire), and is readily modifiable for coaxial connector use. With Cronin used for primary suggestion it would have been obvious to use any such means in APA to prevent static buildup which may cause damage to electronic devices

such as pcbs that would be present in X-ray machines. *Claim 17, Wallo spiral spring applied, Claim 18, Lombard conical fingers 36 and Wallo conical spring are applied.*

For claims 1-12, 14-16, 19, 20, 21, the same references are applied but using only the Lombard type sheath or cover 10 on the Cronin type cable (fig. 1) to

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interconnect 28 to 22 (22a) and with Lombard bayonet pins 22 which are used to join his connector both to apparatus and to the cover 10.

For claim 11, note Lombard disclosure of threaded ring use, col. 3.

Claims 7-11, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronin in view of Lombard.

Cronin fig. 1 discloses a cable with core 28, shield 22a, 22 and which could be used for high voltage. Cronin lacks a sheath or cover for use in electrically connecting the core to the shield when the cable is not in use. Lombard at figs. 2, 6, 9 discloses such a sheath or cover joined to a cable end connector 12 by the same means (pin 22) as would be used to join connector 12 to an electrical apparatus. It would have been obvious to form Cronin, fig. 1 device with omission of part 10 and use of an add on sheath or cover like that of Lombard. This would enable shorting by use of an easily replaceable part. For claim 11, obvious to form Cronin fig. 1 with screw means in view of Cronin fig. 7 system and Lombard threaded ring disclosure and to adapt the shunt cover to such feature. This would only be an alternative to boyonet use. Also note Cronin, col. 1, lines 40-50 tie in with replaceable shunt devices of which Lombard shows one example.

Applicant's arguments filed with the amendment and pertinent to above rejections have been fully considered but they are not persuasive.

The Cronin, Wallo and Lombard teachings are seen to be applicable to coaxial cable connectors of various uses including those of APA type X-ray machines.

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Term shielding wire is seen to be readable on outer shells like that of Lombard at 14 and on cable sheath 22a of Cronin.

The following is an examiner's statement of reasons for allowance: claim 22 "lead" feature in context of other limitations is not suggested by prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Neil Abrams at telephone number (571)272-2089.


NEIL ABRAMS
EXAMINER 1
ART UNIT 322